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HEWLETT-PACKARD COMPANY
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EXAMINER

LIANG, LEONARD S

ART UNIT PAPER NUMBER

2853

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,908

Applicant(s)

FETHEROLF, WILL G.

Examiner

Leonard S Liang

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29,31-55 and 58-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 64-71 is/are allowed.
- 6) ☒ Claim(s) 29,31-55 and 58-61 is/are rejected.
- 7) ☒ Claim(s) 62 and 63 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 31 is objected to because of the following informalities: Claim 31 depends on now cancelled claim 30. It will be construed that the claim should state "The device of claim 29..."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

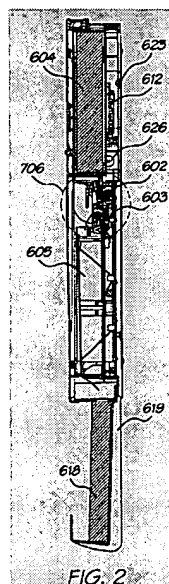
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29, 31-38, 41-44, 48-55, and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al (US Pat 6290349) in view of Frechtman (US Pat 3990670) and Marinoff (US Pat 4207578).

Silverbrook et al discloses:

- {claim 29} A media processing device (figure 2); a media processing engine having a media input along a first face of the engine and an output along a second face of the engine (figure 2, reference 706)



- {claim 31} wherein the engine, when vertically oriented, has a height, a width and a depth, wherein the first face and the second face each define the width and the depth of the engine and wherein the depth is smaller than the height and the width (figures 1-2)
- {claim 32} the engine has a straight-through media path (figure 2; column 3, lines 56-60)
- {claim 33} the media input is configured to receive media while the media is in a vertical orientation (figure 2, reference 604; column 3, lines 56-60)
- {claim 34} the media output is configured to discharge media while the media is in a vertical orientation (figure 2, reference 619; column 3, lines 56-60)
- {claim 35} the media output is configured to discharge media while the media is in a vertical direction (figure 2, reference 619; column 3, lines 56-60)

- {claim 44} the media input comprises an external slot configured to enable individual sheets of media to be manually fed into the slot (figure 2, reference 604; column 3, lines 56-60)
- {claim 48} a media receiver proximate the media output (figure 2, reference 619)
- {claim 50} the receiver receives media from the media output while the media is in a substantially vertical orientation and holds the media in a substantially vertical orientation (figure 2, reference 619)
- {claim 52} the receiver is configured to support the media such that at least a portion of the media extends beyond a front of the print engine opposite the vertical surface (figure 2)
- {claim 54} the media processing engine is configured to print upon the media (column 1, line 65-column 2, line 32)
- {claim 55} the media input is configured to receive an individual sheet of media from a stack of media proximate the input (figure 2, reference 604)
- {claim 58} A media processing device (figure 2); a media processing engine having a media input along a first face of the engine and an output along a second face of the engine (figure 2, reference 706)
- {claim 59} A method for processing media (figure 2); feeding media into a media input of the engine while the media is substantially vertical; printing upon the media; and discharging the printed upon media out a media output of the engine while the media is in the substantially vertical orientation (figure 2; column 3, lines 53-65)

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- {claim 60} positioning a stack of individual sheets of media proximate to the media input (figure 2, reference 604)
- {claim 61} holding the ejected media below the media output (figure 2, reference 619)

Silverbrook et al differs from the claimed invention in that it does not disclose:

- {claim 29} a media processing device for use with a structure having a first vertical surface with an upper most extremity; a media processing unit having an outer housing, wherein the first face and the second face are opposite one another; a support coupled to the engine and configured to couple the engine to the structure such that the media output is below the uppermost extremity of the first vertical surface
- {claim 36} the support is configured to couple the engine to the surface such that the media input is below the uppermost extremity of the first vertical surface
- {claim 37} the structure has a top along the uppermost extremity of the vertical surface and wherein the support extends opposite the top
- {claim 38} the support extends opposite the first vertical surface
- {claim 41} the support is movable between a first position in which the support couples the engine to the structure along the first vertical surface and a second position in which the support rests upon a horizontal surface while inclining at least a portion of the engine above the horizontal surface
- {claim 42} wherein the support is moveable between a first position in which a majority of the support extends beyond the media input and a second position in

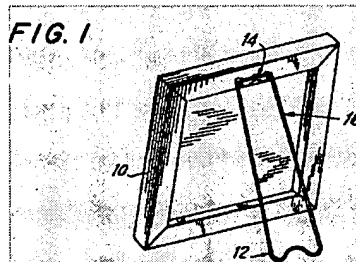
which the majority of the support extends between the media input and the media output

- {claim 43} the support pivots between the first position and the second position
- {claim 49} the media receiver pivots between a first position in which the receiver hangs below the media output and a second position in which the receiver is adapted to rest upon a horizontal surface
- {claim 51} the receiver is configured to support the media in a tilted orientation directed away from the vertical surface
- {claim 53} the support is pivotably coupled to the engine
- {claim 58} a media processing device for use with a vertical surface; a media processing engine having a media input along a first external face of the device, and an output along a second external face of the device opposite the first external face; means for supporting the engine relative to the vertical surface such that the media output is below an uppermost extremity of the vertical surface
- {claim 59} supporting a media processing engine along a vertical surface; mechanically feeding media through a media input along an external face of the device to the engine while the media is substantially vertical; discharging the printed upon media out an external media output opposite the external media input

Frechtman discloses:

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- {claim 29} a pivotable support that is convertible between a hanging mode and a standing mode (figure 1; abstract; column 2, lines 34-43)



- {claim 43} the support pivots between the first position and the second position (abstract; column 2, lines 34-43)
- {claim 58} means for supporting (figure 1; abstract; column 2, lines 34-43)

Marinoff discloses:

- {claims 29, 58, and 59} an outer/external paper supply housing

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Frechtman into the invention of Silverbrook et al. The motivation for the skilled artisan in doing so is to gain the benefit of providing a dynamic support that can both hang an object and stand it up (abstract). The combination naturally suggests:

- {claim 29} a media processing device for use with a structure having a first vertical surface with an upper most extremity; a support coupled to the engine and configured to couple the engine to the structure such that the media output is below the uppermost extremity of the first vertical surface
- {claim 36} the support is configured to couple the engine to the surface such that the media input is below the uppermost extremity of the first vertical surface

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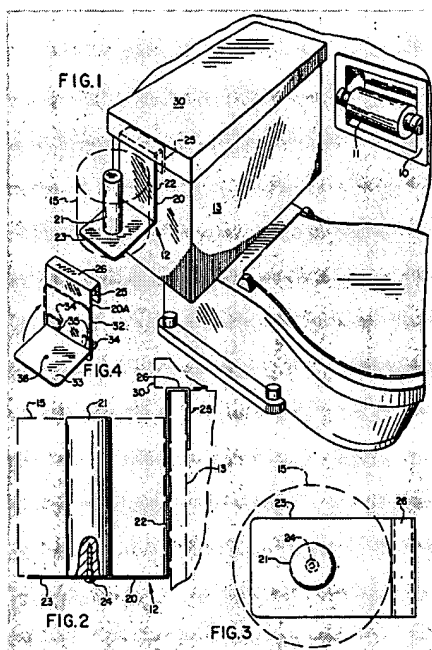
- {claim 37} the structure has a top along the uppermost extremity of the vertical surface and wherein the support extends opposite the top (depending on where mounting takes place)
- {claim 38} the support extends opposite the first vertical surface
- {claim 41} the support is movable between a first position in which the support couples the engine to the structure along the first vertical surface and a second position in which the support rests upon a horizontal surface while inclining at least a portion of the engine above the horizontal surface
- {claim 42} wherein the support is moveable between a first position in which a majority of the support extends beyond the media input and a second position in which the majority of the support extends between the media input and the media output
- {claim 49} the media receiver pivots between a first position in which the receiver hangs below the media output and a second position in which the receiver is adapted to rest upon a horizontal surface
- {claim 51} the receiver is configured to support the media in a tilted orientation directed away from the vertical surface
- {claim 53} the support is pivotably coupled to the engine
- {claim 58} a media processing device for use with a vertical surface; means for supporting the engine relative to the vertical surface such that the media output is below an uppermost extremity of the vertical surface
- {claim 59} supporting a media processing engine along a vertical surface

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the internal paper supply of Silverbrook et al with the exterior paper supply of Marinoff. The motivation for the skilled artisan in doing so is to gain the benefit of being able to quickly feed sheets to the media processing engine without constantly taking out the paper supply cartridge. The combination naturally suggests the first and second external faces are opposite one another.

Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al (US Pat 6290349) in view of Frechtman (US Pat 3990670), as applied to claims 29-38, 41-44, 48-55, and 58-61, and further in view of Marshall, Jr. (US Pat 4074872).

Silverbrook, as modified, teaches all limitations of the claimed invention except for the following: the structure has a second vertical surface opposite the first vertical surface, wherein the top extends between the first vertical surface and the second vertical surface and wherein the support wraps around the structure to extends opposite the second vertical surface.

Marshall, Jr. discloses a structure with a second vertical surface opposite a first vertical surface, wherein a top extends between the first vertical surface and the second vertical surface and wherein a u-shaped support wraps around the structure to extends opposite the second vertical surface (figure 1, 4, reference 25-26).



It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Marshall, Jr. into the invention of modified Silverbrook. The motivation for the skilled artisan in doing so is to gain the benefit of avoiding putting unsightly nail marks into a vertical structure in order to vertically mound the media processing device.

Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al (US Pat 6290349) in view of Frechtman (US Pat 3990670), as applied to claims 29-38, 41-44, 48-55, and 58-61, and further in view of Khormaei (US Pat 5397192).

Silverbrook et al discloses, with respect to claim 46, wherein the engine, when vertically oriented, has a height, width, and depth and wherein the depth is smaller than the height and width (figures 1-2).

Silverbrook et al, as modified, differs from the claimed invention in that it does not disclose the media input is configured to receive media having a width of at least 8 inches.

Khormae discloses "Printers are often called upon to print on a wide variety of recording media having different widths and printing surfaces. Common recording media include standard 8.5X11 inch paper..." (column 1, lines 53-57).

In light of this teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Khormae into the invention of modified Silverbrook et al so that the media input can be configured to receive media having a width of at least 8 inches. The motivation for the skilled artisan in doing so is to gain the benefit of increasing printer versatility; the benefits of printing on media such as standard 8.5X11 inch paper are well known to one of ordinary skill in the art.

Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al (US Pat 6290349) in view of Frechtman (US Pat 3990670), as applied to claims 29-38, 41-44, 48-55, and 58-61, and further in view of Kikuchi (US Pat 5929894).

Silverbrook et al, as modified, teaches all limitations of the claimed invention except for the following: the engine includes a photoconductive drum.

Kikuchi discloses a photoconductive drum.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the printing system disclosed by Silverbrook et al with the printing system disclosed by Kikuchi. The motivation for the skilled artisan in doing so is to gain the benefit of effecting faster print speeds.

Allowable Subject Matter

Claims 64-71 are allowed.

The following is an examiner's statement of reasons for allowance: The examiner contends that there are three main elements to the claimed invention: a media processing engine for vertical printing, a pivotable support for supporting the media processing engine to a vertical wall, and a pivotable media receiver for receiving the media. Based on the claimed invention, the examiner has rejected the claims specifying the media processing engine, but has allowed the claims directed to specifying the pivotable support and media receiver.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 62-63 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 62-63 disclose "wherein the media receiver pivots between a first position in which the receiver extends substantially parallel to a remainder of the device and a second position in which the receiver extends non-parallel to the remainder of the device," which was not found, taught, or disclosed in the prior arts.

Response to Arguments

Applicant's arguments with respect to claims 29, 31-55, and 58-71 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nitta et al (US Pat 5238235) discloses a sheet feeding apparatus.

Unosawa et al (US Pat 6027211) discloses a sheet feeding apparatus and recording apparatus.

Kashimura (EP Pat 0451828) discloses a recording apparatus.

Kitahara et al (US PgPub 20030128253) discloses a printer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Stephen D. Meler
Primary Examiner